

## Summer 2012: SPND 422-60: Differentiated Instruction Using Technology Across the Curriculum

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<b>Office hours</b>	1 hour before and after class and/or by appointment
<b>Class Wiki</b>	<a href="http://spnd422-60.wikispaces.com/">http://spnd422-60.wikispaces.com/</a>
<b>Class place &amp; time</b>	Face-to-face meetings: May 11 & 12; June 8 & 9 Fridays 5:00 – 10:00 PM & Saturdays 8:30 AM - 4:30 PM
TEC Collaborative	Ongoing asynchronous online activity expected Sunday May 12 through Tuesday June 19 (final due)

### **Course description:**

Educators are responsible to incorporate instructional and assistive technology into their classrooms and into their students' Individualized Education Plans. This course provides real world experiences, resources and skill development in using the latest software, Internet resources, adaptive equipment and best practices. Make decisions with guidance resulting in practical solutions that can be readily implemented in inclusive classrooms.

This course is offered in 4 modules. The focus is more on learning and curriculum rather than how technology works. Students will gain overview knowledge of a range of potentially helpful technologies as they relate to learner accommodation or curriculum modification strategies.

### **Course Dates:**

- **Module #1 – Friday May 11 through Saturday May 12 (morning)**  
Managing the Learning Environment
- **Module #2 – Saturday May 12 (afternoon) through Sunday May 20**  
Instructional Activities on the Internet for Curriculum Integration
- **Module #3 – Thursday May 24 through Wednesday June 6**  
Introduction to Assistive Technology, Cognitive and Language Development
- **Module #3 lab – Friday June 8**  
Hands-on Assistive Technology for Curriculum Access
- **Module #4 – Saturday June 9 – Monday June 11**  
Introduction to Multimedia

### **Course Texts:**

Warger, C. (editor). (2006) Technology and Media for Accessing the Curriculum - Instructional Supports for Students with Disabilities. TAM Division Council for Exceptional Children. Reston, VA.

M. Pugliese, B. Heiman, J. Castellani, M. Ault, M. Bausch, M., & C. Warger (Eds.), Integrating Technology Into Instruction: What's Working in Inclusive Classrooms. Reston, VA: Technology and Media Division of the Council for Exceptional Children, 2011.

CEC Technology Considerations Wheel  
Course Binder, CD and other related materials – fee TBA

### **Recommended Books:**

1. Alliance for Technology Access. (2003) *Computer Resources for People with Disabilities*. San Rafael, CA: Author
2. Pugliese, M. (2002) *Stages*. Assistive Technology, Inc. Newton, MA.
3. Scherer, Marcia J. (2004) *Living in the State of Stuck*. How Assistive Technology Impacts the Lives of People with Disabilities. Brookline Books: Cambridge, MA
4. Male, M. (2003). *Technology for Inclusion*. Boston, MA: Allyn and Bacon.

### **Recommended References:** These will be *among many others* offered in class:

1. Mainstream publisher info (Tom Snyder) and others as appropriate
2. Onion Mountain Catalog
3. Laureate Learning Systems Catalog and CD
4. Don Johnston Catalog
5. Cambium Catalog and CD
6. InfoGrip Catalog
7. Others as timely and appropriate

### **Course Objectives:**

Upon completion of the course the students will:

1. Identify built-in computer operating system adjustments that might provide useful as accommodations for pre K – 12 learners.
2. Discuss theories, concepts, and methods of accommodating physical, emotional, intellectual and social challenges for learning in the content standards.
3. Use technology to design or modify curriculum, instructional materials, and classroom environments for students with a range of challenges or disabilities.
4. Describe services provided by IEP Team members.
5. Understand Federal and state laws pertaining to assistive technology.
6. Discuss appropriate use of augmentative communication and other assistive technologies.
7. Experience the operation of adaptive devices, both light tech and computer based devices.
8. Describe the potential impact of multimedia and project-based learning as a strategy for differentiated instruction and universal design.

### **Course Wiki and Wiki, Email, MS Word, and other use of course technologies:**

Many of your course tools are located on the course wiki or CD. How to get access is in the next section of this syllabus. All additional course materials will be made available on the wiki, so you should visit the site regularly to review the resources that may be placed there after the CD was made. You will also be posting to discussions throughout the course. In class there is a demonstration or an orientation session for the course wiki so that everyone will become comfortable using it.

There is frequently communication with the class through email, so you will need to ensure that your current email address is available to use. If you use a private email provider such as Hotmail or Gmail, you will need to forward your Simmons email to that private address so that you will be sure to receive all email related to this class. If you don't know how to forward your email, the Help Desk will be glad to show you how to do this.

During the class you will be using MS Word to **submit your assignments in .doc format**. There is time set aside during class to make sure that you know how to support students using MS Word for ordinary word processing and how to save your work properly. All written assignments will be submitted attached in email.

### **Getting access to wiki and CD developed to support this course**

Assignments and discussions for this course are available on class wiki with additional materials stored on the class CD. The CD stores backup course files and extra articles that relate to each course topic.

1. You may join the wiki earlier or wait until we do this in class together
2. To use the wiki, go <http://spnd422-60.wikispaces.com/>
3. Click "Join" in the upper right corner of the screen or respond to email invitation
4. If you already have a wiki account, sign in. If not, make one using your personal email.
5. If new, check your email to confirm then return to <http://spnd422-60.wikispaces.com/>
6. You should now see your new username in the top right corner – you are a member!

***For support of any kind with this wiki, please feel free to email your professor.***

### **Academic Requirements:**

#### **Learning Environment Module 1: Points possible = 10**

#### **Using technology to Accommodate Learning Differences in 21<sup>st</sup> Century Classrooms (1 Point for each Scavenger Hunt question)**

Students will be checked off for the Scavenger Hunt activity addressing built-in accommodations available in computer operating systems. Direct instruction and hands-on guidance in class directly relates to the questions found on the Scavenger Hunt.

*Scavenger Hunt due on or before Friday June 8. You will be checked off so you can keep this valuable reference in your own files.*

## **Curriculum Integration Module 2: Points possible = 24**

### Discussions

Each student will participate in the online discussions regarding classroom implementation strategies. Posts will be graded for criteria for good discussions online **[12 points]**. (See Rubric)

Discussion Topic #1 in Curriculum Integration Module

Post **[3 points]** and at least one response to someone else **[2 points]** is due on **Monday May 14**.

Discussion Topic #2 in Curriculum Integration Module

Post **[3 points]** and at least one response to someone else **[2 points]** is due **Thursday May 17**.

Discussion Topic #3 in Curriculum Integration Module

Only post **[2 points]** is a reflection due by **Sunday May 20**.

### Curriculum Integration Lesson Plan Project:

Students will profile a learner or group, then select a web based curriculum activity for use with the learner. You will create a lesson plan using the UDL Lesson Builder Template. Download the lesson plan template from the class wiki. Check wherever downloads go on your computer to find the file.

Open the file that you downloaded, then "Save As" *yourlastnameCI.doc*

Include the following details:

- Lesson Overview **[2 points]**;
  - Goals **[2 points]**;
  - Methods **[2 points]**;
  - Assessment **[2 points]**;
  - Materials **[2 points]**; and
  - Consideration for Differentiated Instruction and UDL **[2 points]**.
- Submit your plans via email by **Sunday May 20**.

*Please select among the web sites posted for you at <<http://del.icio.us/SPND422>>*

**Total Curriculum Integration Project Points possible = 12. (See Rubric)**

### **Assistive Technology Module 3: Points possible = 24**

#### **Assistive Technology Investigations and Discussions**

Students will work online to learn about assistive technology through case studies, presentations, demonstrations, video models and research to practice resources. There are 4 thematic activities and related discussions.

1. Learners with Intensive Special Needs in the Classroom
2. Learners with Communication Challenges &/or Autism
3. Individuals with Disabilities Using Technology in the Community
4. Resources, Guides, Models and Presentations

In the Assistive Technology section on the wiki, students will find an assignment for each of these themes. Each assignment contains a set of Internet-based activities accompanied by an online discussion topic. Students will complete each activity and discussion on or before these assigned dates.

1. Learners with Intensive Special Needs – **Thursday May 24**
2. Learners with Communication Challenges &/or Autism – **Tuesday May 29**
3. Individuals with Disabilities Using Technology in the Community – **Saturday June 2**
4. Resources, Guides, Models and Presentations – **Wednesday June 6**

- First post for each topic is due on or before the **specified date. [3 points]**
- At least one response to someone else in each topic is **due on the same day. [3 points]**

Each theme discussion is worth **6 points. Total points = 24 possible points.** (See Rubric)

### **Multimedia and Project-Based Learning Module 4: Points possible = 15**

Students participate in a mock project-based learning activity in class earning **3 points** for adding multimedia elements into the project, **3 points** for team participation and **3 points** for participating in the authentic assessment activity that completes the mock activity.

A reflection discussion post **[3 points]** and at least one response to someone else **[3 points]** is due after our face-to-face class meeting by **Monday June 11.** (See Rubric)

## **Final Project: Points possible = 27**

Students, alone or in pre-approved co-operative groups, will develop a plan for integrating the use of computers and/or other technologies into the classroom curriculum. Your plan **must** include: (see Rubric)

- Learner profile [5 points],
- Strategies for consideration of student diversity [5 points],
- Hardware and peripheral choices, including assistive technology [5 points],  
Specify exact configurations details.
- Details of software or website search, how selections reflect Curriculum Frameworks. [5 points],
- Reflection about your visit to any local computer store to "shop" for equipment [5 points], and
- Budget [2 points].

Please note! This project is ideal to include in a professional portfolio! Your shopping trip and budget are pretend. The goal is for you to see what it would take to implement an ideal learning situation.

***It is not likely that you will find assistive technologies or quality educational software in shopping venues. There is no need to restate this in your paper.***

**Total Final Points possible = 27.**

**Submit your Final Project via email (or before) Tuesday June 19.**

## **Total Point Value of All Assignments**

1. Learning Environment Module = 10 points
2. Curriculum Integration project = 24 points
3. Assistive Technology Project = 24 points
4. Multimedia and Project-Based Learning Module = 15 points
5. Final project = 27 points

## **Grading of Written Products:**

Grading reflects specific content and standard conventions of communication and composition. A rubric will be used to score all written assignments.

## **Grading scale**

A	94 – 100	C	74 - 76
A-	90 – 93	C-	70 – 73
B+	87 – 89	D+	67 – 69
B	84 – 86	D	64 – 66
B -	80 – 83	D-	60 – 63
C+	77 – 79	F	below 60

## **Policies of the Education Department, Simmons College:**

This course is fast-paced and failure to keep up with the readings, assignments, and lack of participation and *less than perfect attendance will prove difficult, if not impossible, to recover from.* We, the members of the Education Department, believe strongly in the contributions and participation of students during class meeting times, and therefore require attendance at all class sessions. We realize that there may be times when, due to extenuating circumstances, attendance may not be possible. We also recognize that as adult learners, you are the best judge as to whether a situation warrants your absence from class; therefore instructors will neither grant nor deny any excused or unexcused absences. Requests for excused absences must be submitted in writing to the Program Director and the Chair of the Department for individual review within one week of the absence. *For every hour of class missed (or portion thereof), the student's grade will be reflected by a 2 point, per hour, reduction from the final grade.*

Assessment of participation may seem subjective, but as the educator I maintain heightened awareness of the active and passive forms of participation that each of you take in this course. Your participation, by volunteering and speaking out with questions/answers and active participation in online and classroom discussions are observable evidence of the active role. Roles such as note-taking or thoughtful reflection may be indicators of passive participation on your part, but are more difficult to assess and document by the instructor. Participation, in any form, will be taken into account when determining the final grade. *Excellent attendance and active participation will, most likely, serve favorably in the instructor's determination of this element of class responsibility.*

1. If you happen to miss any part class, it is your responsibility to contact a class member so that you will be aware if there has been any change in the class schedule or a change in the assignments, and for course content.
2. Please refrain from using your cell phone and email during class.
3. All written products must be word-processed.
4. Grammatical/spelling errors result in grade point deductions for written products.
5. Assignments are due on time on the dates indicated. Projects will not be accepted after the due date without consequence. For each day that any paper is late, 1/3 of a grade will be deducted. For example, an A paper would become an A- if one day late, a B+ if two days late, etc.

## **Student Need:**

Reasonable accommodations will be provided for students with documented physical, sensory, systemic, cognitive, learning and psychiatric disabilities. If you have a disability and anticipate that you will need a reasonable accommodation in this class, it is important early in the semester that you contact *Disability Services*. (617) 521-2473. Students with disabilities are also encouraged to contact the instructor immediately to discuss their individual needs for accommodations. Accommodations cannot be made except through the Academic Support Center.

**Plagiarism:**

As stated by Use of Secondary Sources and Collaborative Learning in Papers at Simmons College by Lowry Pei and Tom Hurley, plagiarism is considered an extremely serious offense. The following are some examples of plagiarizing work:

1. A paper copies, literally, or with slight alterations, from another author's work
2. A paper containing many phrases or sentences lifted from some other source(s), without any attempt at attribution, which are glued together with phrases and sentences of the student's own, writing.
3. The student claims authorship of another person's idea by changing the way that they phrased it.
4. One paper submitted for two separate courses without the authorization to do so.



## **SPND 422 Schedule and Assignments:**

### **Module #1 - Friday May 11 through May 12 (morning)**

#### **Managing the Learning Environment**

Learn the terminology and comfortable operation of personal computers. Topics are selected to develop a foundation for success in classrooms and include setup and assembling components; user safety; adjustment of controls; operating systems and user interfaces; strategies for saving and retrieving data; storage devices; managing memory and types of peripherals such as monitors, printers and network connectivity options.

1. Setup and safety
2. Disks and Storage
  - floppy disks and drives
  - hard disks: internal and external
  - types of media for storage
3. System software, Memory, Control Panels & System Preferences
  - controls for the learning environment
  - Printing and Connecting
4. Using software
  - teaching and using word processing
  - saving and printing your work
5. Peripherals

***Do this after class on Friday evening or as you arrive in class on Saturday morning:***

Study either Apple or Microsoft Accessibility website to support your operating system

<http://www.apple.com/accessibility/>

<http://www.microsoft.com/enable/>

#### ***Assignments:***

1. Study Apple & Microsoft Accessibility web sites
2. Scavenger Hunt
3. Required Readings - please feel free to read ahead

## **Module #2 - Saturday May 12 (afternoon) through Sunday May 20**

### **Instructional Software, Web-based Applets and Curriculum Integration**

The key to computer integration in education is selecting software or online activities that meets varying needs. "Does the activity...

- Facilitate both teacher and learner control?
- Encourage flexible and risk-free learning?
- Allow for multi-sensory learning?

Examine activity characteristics that match learning styles. Accommodate student diversity and satisfy curriculum demands.

1. Theoretical framework
  - Instructional Design
  - Software selection strategies
2. Curriculum integration planning
3. Curriculum integration project
4. Hands-on websites across integrated K-12 curriculum
5. Presenting our findings through discussions online
6. What are the classroom implications?

Assignments: 1) Curriculum Integration Project and Discussion Posts; 2) Read "Providing New Access to the General Curriculum" (B 6-15); 3) Read "Access, Participation and Progress in the General Curriculum" (B 16-43); 3) Read "Using Technology to Provide General Curriculum Access" (B 44-51); 4) Chapters 3 (Pages 19–28) and Chapter 5 (Pages 39-52); and 5) glance at CD articles

## **Module #3 – Thursday May 24 through Friday June 8**

### **Introduction to Assistive Technology, Cognitive and Language Development**

#### **Hands-on Lab - Introduction to Assistive Technology – Friday June 8**

Discover an overview of major types of adaptive hardware used to equalize learning environments for children with a range of barriers to the classroom curriculum. In addition, find out about software tools available to augment the learning process. Topics addressed include accommodations for motor, vision, hearing, communications, learning and cognitive barriers.

1. How the service delivery team works together
2. Low tech/high tech solutions - a sequence of decisions
3. Program implementation issues
4. Adaptations and alternatives for the mouse
5. Adaptations and alternatives for the keyboard
6. Adaptations and alternatives for the screen
7. Communication devices
8. Scaffolding learning

**Assignments:** 1) *Assistive Technology* binder section; 2) glance at CD articles; 3) Read "How To Support Students With Learning Differences - The Assistive Technology and Education Connection" (C 1-6); 3) Read "AT\_solutions-FCTD" (C 7-17) and 5) Chapter 4 (Pages 29-38), Chapter 6 (Pages 53-62) and Chapter 7 (Pages 63-66).

## **Module #4 – Saturday June 9 (through Monday June 11)**

### **Multimedia and Project-Based Learning**

Multimedia offers unique methods for individualizing instruction using a multi-sensory approach. Participants are introduced to the vast possibilities and a range of new peripherals. Strategies for using multimedia as both learning and teaching strategy are discussed.

1. What is multi-media
2. What are some of the equipment possibilities?  
CD ROM: curriculum, research tools and field trips  
DVD  
still and video cameras with video digitizing  
scanners  
image processing software  
sound digitizing or capture  
PodCasting
3. What software is useful?
4. Classroom implementation issues and implications
5. Hands-on with multimedia learning technologies
6. Project based cooperative learning

***Assignments due for class:*** 1) *Multimedia* binder section; 2) glance at CD articles; 3) Read “*Expanding the Literacy Toolbox*” (D 2-13); and 4) Chapter 1 (Pages 1-9)

<b>Friday #1 Learning Environment Module 1</b>	<b>Saturday #1 Curriculum Integration Module 2</b>	<b><i>Blended Learning Curriculum Integration Module 2</i></b>
5:00-6:00 pm Introduction How to use Class Wiki	8:30-9:00 am Discussion	
6:00-7:00 Setup and safety Disks and Storage Floppy disks and drives Hard disks: internal/external Types of media for storage Operating Systems Memory  Working in TEC lab	9:00-12:00 Using software Teaching and using word processing Saving and printing  Presentation: Teaching and Learning with Various Types of Educational Software	<i>Curriculum integration project</i>  <i>Hands-on: research websites across K-12 curriculum</i>  <i>Presenting your findings in a lesson plan format</i>  <i>What are the classroom implications? (Discussions)</i>
7:00 – 7:30 Dinner Break	12:00-1:00 Lunch Break	
7:30 – 10:00 pm System software: Control Panels & System Preferences – Scavenger Hunt Assignment Setting controls for the learning environment Printing and Connecting Using Peripherals  Word Processing	1:00-4:30 Theoretical framework Instructional Design  Software selection strategies  Discussion – Curriculum Integration and online assignments	<i>Curriculum integration project</i>  <i>Hands-on websites across K-12 curriculum</i>  <i>Create Lesson Plan</i>  <i>What are the classroom implications? (Discussions)</i>
Assignment: Study either Apple or Microsoft Accessibility website to support your operating system  <a href="http://www.apple.com/accessibility/">http://www.apple.com/accessibility/</a>  <a href="http://www.microsoft.com/enable/">http://www.microsoft.com/enable/</a>	Assignments: 1) Integration Project and Discussions; 2) Read "Providing New Access to the General Curriculum" (B 6-15); 3) Read "Access, Participation and Progress in the General Curriculum" (B 16-43); 3) Read "Using Technology to Provide General Curriculum Access" (B 44-51); 4) Chapters 3 (Pages 19–28) and Chapter 5 (Pages 39-52); and 5) glance at CD	<i>Assignments:</i> <i>Curriculum Integration Project</i> <i>Discussion Posts</i> <i>Readings from earlier</i>

<b><i>Blended Learning Assistive Technology Module 3</i></b>	<b>Friday #2 Assistive Technology Lab</b>	<b>Saturday #2 Multimedia and Project- Based Learning Module 4</b>
<i>Assignment and Discussion:  Learners with Intensive Special Needs in the Classroom</i>	5:00-6:00 pm Discussion - Program implementation issues  How the service delivery team works together?	8:30-9:30 am Discussion What is multimedia? What role does Internet play?
<i>Assignment and Discussion:  Learners with Communication Challenges &amp;/or Autism</i>	6:00-7:00 Hands-on Lab: Low tech/high tech solutions - a sequence of decisions  Hands-on Lab: adaptive curriculum access solutions stations	9:30-12:00 What are some of the equipment possibilities?  Research tools  Digital photo & video cameras Scanners Image processing software Sound digitizing/capture
<i>Assignment and Discussion: Individuals with Disabilities Using Technology in the Community</i>	7:00 – 8:00 Dinner Break	12:00-1:00 Lunch Break
<i>Assignment and Discussion:  Resources, Guides, Models and Presentations</i>	8:00 – 10:00 pm Hands-on: Adaptations and alternatives for the mouse and the keyboard  Adaptations and alternatives for curriculum access  Communication devices  Scaffolding learning	1:00 - 4:30 Hands-on with multimedia learning technologies  PodCasting What software is useful?  Classroom implementation  Project-based cooperative work and Authentic assessment
<b><i>Assignments Due for class on Friday &amp; Saturday #2</i></b>	1) <i>Assistive Technology</i> binder section; 2) glance at CD articles; 3) Read “ <i>How To Support Students With Learning Differences - The Assistive Technology and Education Connection</i> ” (C 1-6); 3) Read “ <i>AT_solutions-FCTD</i> ” (C 7- 17) and 5) Chapter 4 (Pages 29-38), Chapter 6 (Pages 53-62) and Chapter 7 (Pages 63-66).	1) <i>Multimedia</i> binder section; 2) glance at CD articles; 3) Read “ <i>Expanding the Literacy Toolbox</i> ” (D 2-13); and 4) Chapter 1 (Pages 1-9)